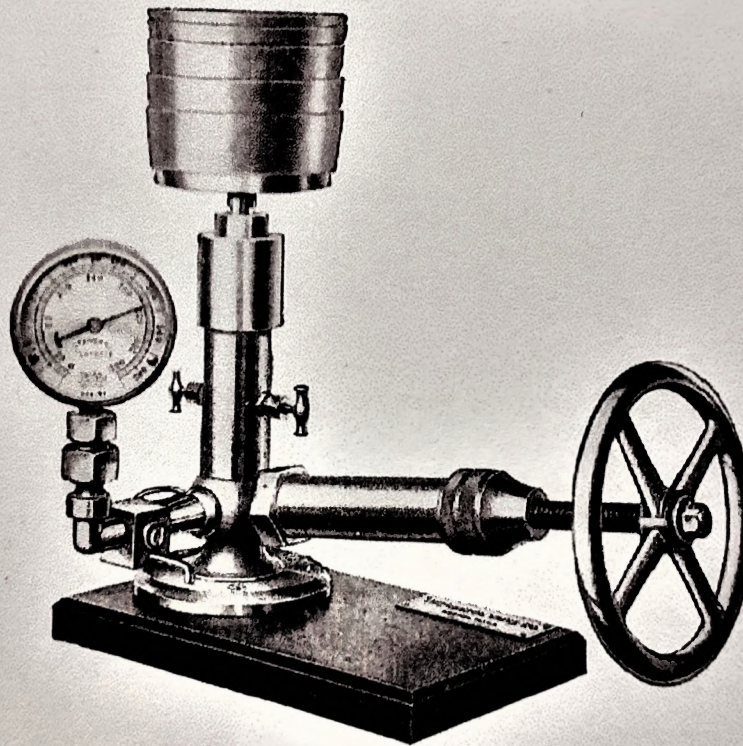


# **THE ASHTON**

## **IMPROVED DOUBLE AREA DEAD-WEIGHT Pressure Gage Testers**

*FOR ACCURATELY TESTING PRESSURE GAGES  
BY MEANS OF WEIGHTS*



THE ASHTON DEAD-WEIGHT GAGE TESTER, as above shown, offers in convenient form an improved method for accurately testing pressure gages by means of weights, and is a recognized standard extensively adopted for this important service. It is equal in accuracy to a mercury column, and has the added advantage of compactness, portability and lower cost.

**The Ashton Valve Company**

161-179 FIRST STREET, CAMBRIDGE

BOSTON, MASS.

NEW YORK

CHICAGO

SAN FRANCISCO



# Ashton Improved Dead-Weight Pressure Gage Tester

## DIRECTIONS FOR OPERATING

**P**LACE the Tester on a table or bench that is level, so that the weight plunger will stand exactly vertical and work smoothly in the upright cylinder without friction on any side, which might otherwise give a false reading. Thoroughly clean all interior parts, which must be entirely free from grit or dirt. The best results are obtained by using sperm oil.

When ready to fill the Tester with oil, the three-way cock on the gage connection arm should be closed by turning the lever handle to a vertical position. The hand wheel should be screwed into the oil reservoir as far as it will go. The cap on top of cylinder having been removed — and the overflow cup screwed on in place of it — the oil can then be slowly poured into the cylinder, and the hand wheel gradually unscrewed until the instrument is completely filled.

The Gage to be tested can now be applied, as shown in the cut, and the three-way cock opened by turning lever handle to a horizontal position to the right. The plunger with weight holder may then be inserted in cylinder, making Tester complete and ready for use.

To insure accuracy of readings, **THE PLUNGER SHOULD BE REVOLVED SLOWLY** to reduce any friction there might be in the cylinder. As the plunger is forced downward by the weights applied, the hand wheel should be screwed in. The overflow cup is of such a height as to prevent plunger from striking the bottom. Do not force the weight plunger up too high; three-eighths inch is sufficient.

When testing at low pressures, the instrument should be adjusted to use the combined large and small areas of plunger. This is accomplished by closing the cock on left-hand side of vertical cylinder and opening the right-hand one. For testing at high pressures no additional weights are required, it being merely necessary to reverse the adjustment of the cylinder cocks. The one on the left should be opened and that on the right closed as shown in cut on page 4. This makes use of only the small area of the plunger, and the pressure then exerted will be four times as great as before, and applies to the weight holder as well as to each of the weights, increasing the testing capacity to full maximum. **BEFORE MAKING THIS CHANGE, IT IS ALWAYS ADVISABLE TO REMOVE ALL PRESSURE IN THE TESTER BY UNSCREWING THE HAND WHEEL.**

The pressures exerted on the Gage are as follows:

	<i>Single or Combined</i>	<i>Small</i>
Plunger and weight holder.....	5 lbs.	20 lbs.
$\frac{1}{4}$ pound weight.....	$1\frac{1}{4}$ lbs.	5 lbs.
$\frac{1}{2}$ pound weight.....	$2\frac{1}{2}$ lbs.	10 lbs.
1 pound weight.....	5 lbs.	20 lbs.
2 pound weight.....	10 lbs.	40 lbs.
4 pound weight.....	20 lbs.	80 lbs.

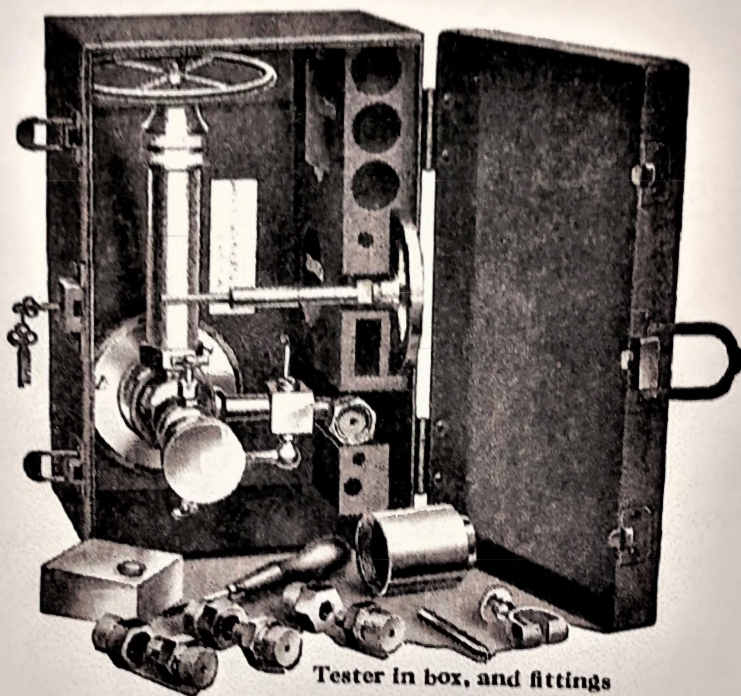
Each weight is marked with the number of pounds per square inch it will exert on the Gage with either combined area adjustment or small area adjustment.

When each test is completed the three-way cock should be closed by turning lever back to vertical position, which will shut off the connection to Gage, as well as drain the oil from it into the oil can, which should be placed under the drain cock. The Gage then can be removed and another one applied and three-way cock opened again. Never attempt to take off the weights or plunger without first removing all pressure.

The oil may be left in the instrument when not in use, but the plunger should be taken out and carefully cleaned before being put away. The cap should be screwed on to the top of the cylinder to prevent dirt from entering. To completely drain all oil from the instrument turn the three-way cock handle horizontally to the left.



# Ashton Improved Dead-Weight Pressure Gage Tester



Tester in box, and fittings

**E**ACH Tester with fittings is neatly packed in an electrically welded box of pressed steel, with lock. The weights are in one or more (depending on the number) similar boxes, all of which have handles for convenience in carrying.

This Tester is preferable to others of similar design because of its special distinctive construction with double area plunger, the area of the small end being one-fourth the area of the body, as shown in section on page 4.

This exclusive feature renders it possible to make tests within its designated range of pressure with one-fourth the usual number of weights, which is a matter of considerable convenience as well as economy of time. The Gage shown in cut on page 1 is not furnished, being merely an illustration of a Gage applied for test.

## EQUIPMENT

With each Tester is furnished a complete equipment of necessary weights and tools, consisting of screw-driver, oil can, gage hand puller, hand set, and six connecting nipples for attaching gages.

When additional testing capacity is desired, it can be accomplished up to 2,000 pounds by ordering extra weights at a nominal expense.

Testers are furnished with suitable weights for the following capacities, and orders should specify style number and capacity.

- \* No. 80 Style for testing to 2,000 lbs.
- \* No. 80A Style for testing to 1,500 lbs.
- \* No. 79 Style for testing to 1,000 lbs.

- † No. 79A Style for testing to 500 lbs.
- † No. 79B Style for testing to 300 lbs.
- † No. 79C Style for testing to 200 lbs.

\* 20-lb. intervals.

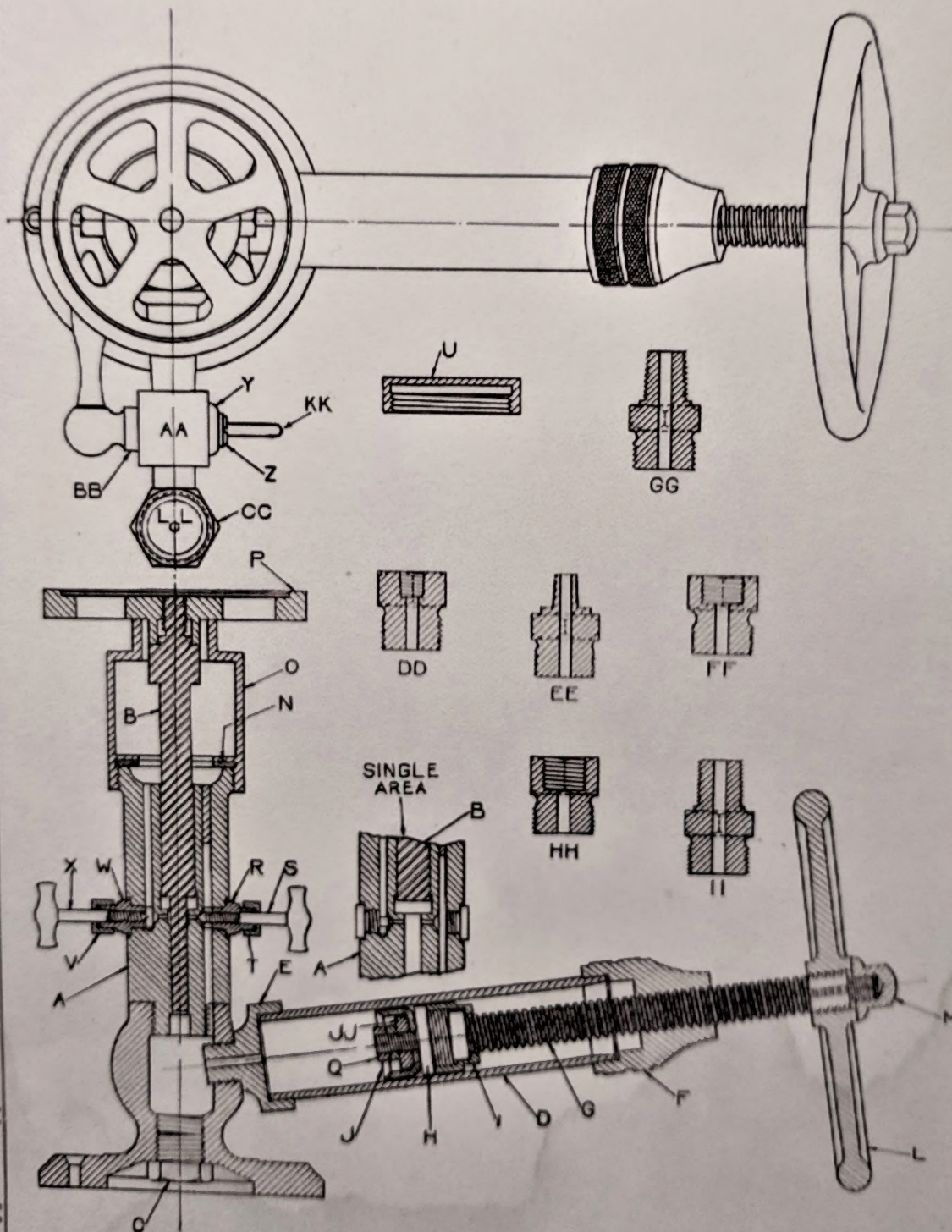
† 5-lb. intervals.



Nest of weights in box

PRICES ON APPLICATION

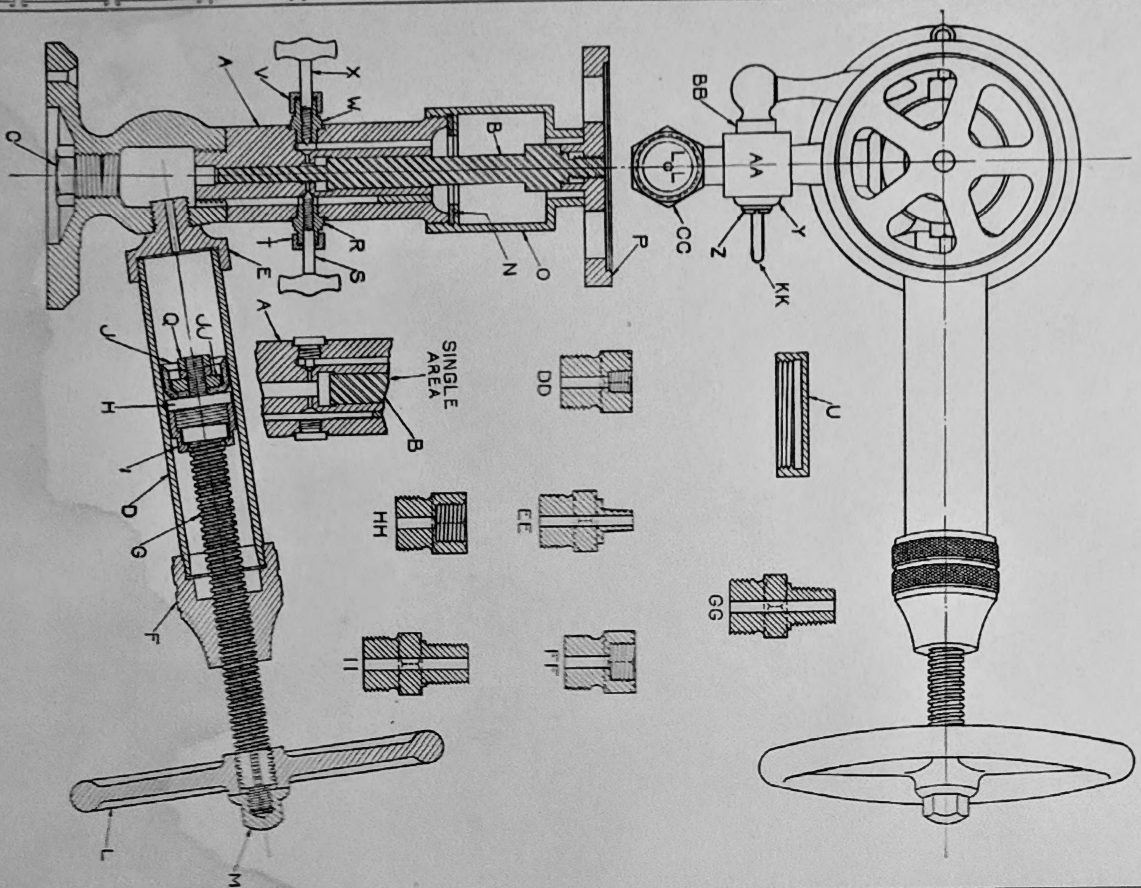






# Ashton Improved Dead-Weight Pressure Gage Tester

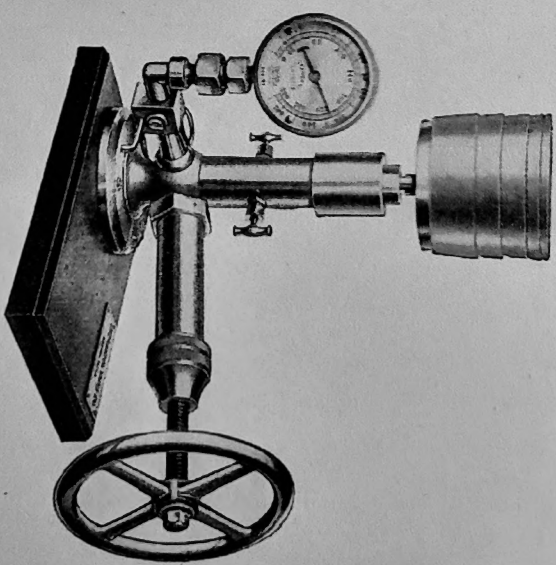
## LIST OF PARTS



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